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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,158	07/11/2001	Philip T. Choong	18180.0070	8816
31824	7590	04/20/2005	EXAMINER	
MCDERMOTT WILL & EMERY LLP			PEREZ, ANGELICA	
18191 VON KARMAN AVE.			ART UNIT	
IRVINE, CA 92612-7107			PAPER NUMBER	
			2684	
DATE MAILED: 04/20/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/902,158

Applicant(s)

CHOONG ET AL.

Examiner

Perez M. Angelica

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/15/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 12, 14, 16, 17, 26-28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (Lee et al.; US Patent No.: 6,751,207 B1) in view of Adams (Adams et al.; US Pub No.: 2003/0,016,679 A1) and further in view of Mermelstein (Mermelstein et al.; US Patent No.: 5,995,923 A).

Regarding claims 1, 16 and 30, Lee teaches of a method (column 1, lines 54-55) and system (column 1, lines 26-30) of routing a bit stream representing a voice communication over a telecommunications network (column 1, lines 25-30), comprising: receiving a bit stream representing a voice communication (column 2, lines 32-36; where IP networks receive voice as bit streams).

Lee does not specifically teach of setting at least one bit in the bit stream as a pseudo-tunneling flag; receiving the bit stream at a network switch; checking the pseudo-tunneling flag of the bit stream; and processing the bit stream as a data communication rather than a voice communication if the pseudo-tunneling flag is set.

In related art concerning network routing, Adams teaches of setting at least one bit in the bit stream as a pseudo-tunneling flag (paragraph 0023, lines 13; e.g., "status flag" which can indicate the type of data) receiving the bit stream at a network switch (paragraph 0009, lines 1-4); checking the pseudo-tunneling flag of the bit stream (figure 3, item 308; "determining a packet classification"); and processing the bit stream as a data communication rather than a voice communication if the pseudo-tunneling flag is set (figure 3, item 308, paragraph 0023, lines 17-19 and paragraph 0029; where the information is processed as data in a VoIP).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Lee's voice over internet protocol routing method with Adams's status determination flag in order to allocate the minimum amount of bandwidth for communication.

Lee in view of Adams does not specifically teach where the processing: includes decoding the bit stream into a first set of vocoder parameters compatible with a first vocoder standard: and transforming the first set of vocoder parameters into a second set of vocoder parameters compatible with a second vocoder standard without converting the first set of vocoder parameters to an analog or digital waveform representation.

In related art concerning a method and apparatus for improving the voice quality of tandem vocoders, Mermelstein teaches of decoding a bit stream into a first set of vocoder parameters compatible with a first vocoder standard: and transforming the first set of vocoder parameters into a second set of vocoder parameters compatible with a

second vocoder standard without converting the first set of vocoder parameters to an analog or digital waveform representation (columns 2 and 3, lines 33-67 and 1-16; e.g., "...to enable the exchange of speech signals from one vocoder to another vocoder, irrespective of whether they are identical or not...").

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Lee in view of Adams voice over internet protocol routing method with Mermelstein's vocoder conversion in order to "meet bandwidth demands of different wireline and wireless communication systems", as taught by Mermelstein.

Regarding claim 2 and 17, Lee in view of Adams and further in view of Mermelstein teaches all the limitations of claims 1 and 16, respectively. Adams further teaches of receiving a call at a local interface; determining during a call setup process whether the call is a voice call; and setting a pseudo-tunneling flag in a bit stream of the call if the call is a voice call (column 4, lines 29-35).

Regarding claims 12 and 26, Lee in view of Adams and further in view of Mermelstein teaches all the limitations of claim 1 and 26, respectively. Adams further teaches where a pseudo-tunneled voice call is routed through a packet-switched data network using a switched virtual circuit (SVC) (paragraph 0023, lines 1-5; where X.25 networks is the foundation of "VPN" and "SVC" are used in X.25 networks).

Regarding claim 14, Lee in view of Adams and further in view of Mermelstein teaches all the limitations of claim 1. Adams further teaches where voice calls and data calls are routed over the same network (paragraph 0008; e.g., packet switching

network... routing of packets within the network; where the packets contain data and voice).

Regarding claims 13, 27 and 28, Lee in view of Adams and further in view of Mermelstein teaches all the limitations of claims 12, 26 and 16, respectively. Adams further teaches where the SVC lasts only for the duration of the call and is torn down at the completion of the call (paragraph 0023, lines 1-5; where it is inherent of "SVC" to lasts only for the duration of the call and is torn down at the completion of the call).

3. Claims 3-9, 13, 18-23, 27-28 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Adams and Mermelstein as applied to claim 1 above, and further in view of Dent (Dent, Paul W.; US Patent No.: 6,571,212 B1).

Regarding claims 3 and 18, Lee in view of Adams and further in view of Mermelstein teaches all the limitations of claims 1 and 16, respectively.

Lee in view of Adams and further in view of Mermelstein does not specifically teach where the bit stream represents voice packets, each voice packet including at least one vocoder frame of a first vocoder format.

In related art concerning a mobile internet protocol voice system, Dent teaches where the bit stream represents voice packets, each voice packet including at least one vocoder frame of a first vocoder format (column 4, lines 17-25).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Lee and Adam and Mermelstein combined voice over internet protocol routing method and status determination flag with voice over internet

protocol routing method with Dent's vocoder in order to digitize the signals and save bandwidth.

Regarding claims 4 and 19, Lee in view of Adams, further in view of Mermelstein and further in view of Dent teaches all the limitations of claims 3 and 18, respectively. Dent further teaches where the bit stream is not converted from the first vocoder format to a decompressed format (column 5, lines, 51-61; where the format is "compressed" not "decompressed").

Regarding claims 5 and 20, Lee in view of Adams, further in view of Mermelstein and further in view of Dent teaches all the limitations of claims 3 and 18, respectively. Dent further teaches of setting at least one bit in each voice packet as pseudo-tunneling flag (paragraph 0023, lines13; where it is inherent for data packets to contain at least one bit in the flag).

Regarding claims 6 and 21, Lee in view of Adams, further in view of Mermelstein and further in view of Dent teaches all the limitations of claims 3 and 18. Dent further teaches of encapsulating at least one vocoder packet into a routing packet for routing through a packet switched data network (column 5, lines 51-57; where it is inherent for data packets to be routed through packet switched data networks) and setting a pseudo-tunneling flag in the routing packet (paragraph 0023, lines13).

Regarding claims 7, 22 and 31, Lee in view of Adams, further in view of Mermelstein teaches all the limitations of claims 1, 16 and 30, respectively. Dent further teaches where the step of processing the bit stream comprises routing voice calls through a public switched telephone network if a pseudo-tunneling flag is not set, and

routing voice calls through a data network if the pseudo-tunneling flag is set (paragraph 0014, lines 1-13; where the routing is done to a regular "PSTN" network if VoIP is not indicated).

Regarding claims 8 and 23, Lee in view of Adams and further in view of Mermelstein teaches all the limitations of claims 1 and 16, respectively. Dent further teaches of receiving the bit stream at a destination local interface; checking at least one pseudo-tunneling flag of the bit stream; and processing the bit stream as a pseudo-tunneled bit stream if the pseudo-tunneling flag is set (figure 5, items 10; where the signal is processed as a data signal and converted back into voice).

Regarding claim 32, Lee in view of Adams and further in view of Mermelstein teaches all the limitations of claim 31, Dent further teaches further of a destination local interface receiving the bit stream from the network switch (column 5, lines 51-57); transcoding the bit stream if the pseudo-tunneling flag is set (paragraph 0693 and line 13 of paragraph 0023).

4. Claims 9-11, 15, 24-25 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Adams and Mermelstein and further in view of Dent applied to claims 8 and 23 above, and further in view of Elliot (Elliot et al.; US Pub.: No.: 2004/0022237 A1).

Regarding claims 9 and 24, Lee in view of Adams, further in view of Mermelstein and further in view of Dent teaches all the limitations of claims 8 and 23, respectively.



Lee in view of Adams and further in view of Mermelstein and further in view of Dent does not specifically teach where a pseudo-tunneled bit stream is processed by a transcoder which converts the bit stream into a second vocoder format.

In related art concerning voice over data telecommunications network architecture, Elliot teaches where a pseudo-tunneled bit stream is processed by a transcoder which converts the bit stream into a second vocoder format (paragraph 693; where the transcoder compresses voice data, therefore, the second vocoder will have a compressed format).

It would have been obvious to a one of ordinary skill in the art at the time the invention was made to combine Lee, Adam, Mermelstein and Dent combined method with Elliot's transcoder in order to save bandwidth.

Regarding claims 10 and 25, Lee in view of Adams further in view of Mermelstein, further in view of Dent and further in view of Elliot teaches all the limitations of claim 9 and 24, respectively. Elliot further teaches where the transcoder is a compressed domain transcoder (paragraph 0693; where transcoders are inherently compressors).

Regarding claim 11, Lee in view of Adams further in view of Mermelstein, further in view of Dent and further in view of Elliot teaches all the limitations of claim 10. Elliot further teaches where the compressed domain transcoder converts one of the following vocoder formats: LPC, TDVC, and MELP (page 105, column 5, line 21 of the third parameter tag; where examiner has selected LPC from the choices given).

Regarding claims 15 and 29, Lee in view of Adams and further in view of Mermelstein teaches all the limitations of claims 14 and 28. Elliot further teaches comprising padding the bit stream with a padded bit sequence to accommodate routing the bit stream across a network (paragraph 1542).

5. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 571-272-7885. The examiner can normally be reached on 7:00 a.m. - 3:30 p.m., Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either the PAIR or Public PAIR. Status information for unpublished applications is available through the Private PAIR only. For more information about the pair system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

  
Angelica Perez  
(Examiner)

  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER  
Art Unit 2684

April 12, 2005